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September 30, 2004

Via ECFS

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Written Ex Parte Presentation in WT Docket Nos. 03-137

Dear Ms. Dortch:

On behalf of QUALCOMM Incorporated ("QUALCOMM"), I am filing herewith the following written presentation regarding the above-referenced proceeding.

QUALCOMM met with staff members of the FCC on May 4, 2004 to discuss QUALCOMM's comments in the above-referenced docket. One topic of the meeting related to Paragraph 27 of the Notice of Proposed Rule Making ("NPRM") in this docket, wherein it is proposed that no SAR evaluation be required for devices operating under 200mW when a separation distance of 20cm can be maintained from the user's body. In QUALCOMM's Comments, we proposed that SAR measurements not be required for transmitters operating at or below 500mW when a separation distance of 20cm is maintained from the user's body. During the meeting with the FCC staff, the staff expressed interest in seeing SAR data for devices to help substantiate this position. In this letter, QUALCOMM presents data taken from the FCC's database of equipment authorizations grants that supports a power level of 500mW as QUALCOMM has proposed.

QUALCOMM also asks the FCC to consider adoption of a separation distance of less than 20 cm such that the test requirements for laptop type approvals can be relaxed while still ensuring compliance with RF safety requirement with comfortable margin. New laptop models are trending toward smaller sizes such that any antenna in the lid is not likely to be 20 cm from the user's lap, and therefore under the current rules, such laptops would have to go through lengthy and costly SAR tests for each laptop model with a WWAN device embedded in it. However, the data that we found in the FCC's own database shows that there is no need for the FCC to require a 20 cm separation distance in order to meet RF exposure limits. The data shows no SAR problem at a 10 cm separation distance.

Data from FCC database of granted authorizations is presented herein showing SAR levels for Part 22/24 devices measured with various separation distances. Nine grants for PCMCIA cards and eight grants for randomly selected phones are summarized in Tables 1 and 2, infra. The tables summarize the authorized output power and reported SAR values for the

Part 22/24 devices as specified on the FCC grant for each device. The SAR values for mobile phones are the body worn SAR configuration results at the specified separation distance for the device.

The data shows that all of the examined devices meet the FCC SAR limit while transmitting at power levels near or above 500mW with a separation distance of 1 to 4 cm. Based on this data, it is clear that these devices meet the FCC SAR limit with a separation distance of 20cm by a significant margin. It is also true to say that a distance less then 20cm will also result in significant margin. Many new laptop computers with small physical profiles would benefit from a relaxed separation distance requirement because they will incorporate display embedded antenna sub-systems. From reviewing laptop designs, a distance of 10cm is a realistic separation distance that would allow laptop manufacturers to proceed with their embedded wireless WWAN designs without the need for costly and time consuming SAR measurements.

QUALCOMM asks that the FCC consider this empirical evidence when specifying the power threshold at which SAR data must be supplied for Part 22/24 devices that are integrated into laptops where a 10cm or greater separation distance can be maintained from the user.

The data appears on the following two pages in two tables. I am filing this letter via the ECFS system.

Respectfully submitted,

/s/ Dean R. Brenner

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Table 1: Part 22/24 PCMCIA Cards

Grantee	FCC ID	Grant Date	Type of Device	Modulation	Band	Grant Power (w)	Grant Power (dBm)	1g SAR (mW/g)	Specified Separation Distance (cm)
Xplore Technologies, Inc.	Q2GIX104-112	9/22/03	Tablet PC with GSM and WLAN radios	GSM/GPRS	Cellular	0.139	21.4	0.32	1
					PCS	0.887	29.5	0.35	
Sierra Wireless	N7NAC575	11/3/02	PCMCIA Card - Dual Band CDMA	CDMA	Cellular	0.251	24.0	1.24	1.5
					PCS	0.432	26.4	1.06	
Itronix Corporation	KBCIX260AC750-MPI	5/29/03	Rugged Laptop PC with PCS GSM/GPRS Modem	GSM/GPRS	PCS	0.968	29.9	0.99	1.5
Sony Ericsson	PY76130201	1/17/03	PCMCIA Card - GSM/GPRS	GSM/GPRS	PCS	0.734	28.7	1.084	2.5
Sierra Wireless	N7NAC750		PCMCIA Card - GSM PCS1900	GSM/GPRS	PCS	1.79	32.5	1.23	2
Novatel	NBZNRM-MG301	7/24/02	PCMCIA Card - GSM/GPRS PCS	GSM/GPRS	PCS	0.923	29.7	1.256	1.5
Sierra Wireless	N7NACRD555	2/19/03	PCMIA Card - Dual Band CDMA Wireless Modem	CDMA	Cellular	0.513	27.1	1.12	1.5
					PCS	0.851	29.3	1.33	
Sierra Wireless	PNF-PC3220P	3/27/03	PCMCIA Card - Dual-Band CDMA	CDMA	Cellular	0.353	25.5	1.34	1.5
					PCS	0.348	25.4	1.26	
Sony Ericsson	PY7F1021011	7/31/03	PCMCIA Card - GSM/GPRS and WLAN Combo card	GSM/GPR	PCS	1.38	31.4	1.41	4

Table 2: Part 22/24 Phones

Grantee	FCC ID	Grant Date	Type of Device	Modulation	Band	Grant Power (w)	Grant Power (dBm)	1g SAR (mW/g)	Specified Separation Distance (cm)
Samsung Electronics	A3LSCHA610	1/16/03	Phone - PCS Dual Band	CDMA	Cellular	0.4	26.0	1.3	1.5
				CDMA	PCS	0.446	26.5	1.25	
Nokia Inc	QMNRH-27	11/1/03	Phone - Tri-Mode	AMPs	Cellular	0.523	27.2	0.97	2.2
				CDMA	PCS	0.433	26.4	0.54	2.2
LG Electronics	BEJVX4700	8/12/04	Phone - Tri-Mode	AMPs	Cellular	0.45	26.5	1.28	1.5
				CDMA	PCS	0.317	25.0	0.894	
Motorola	IHDT56EF1	6/9/04	Dual band CDMA and Dual band GSM (Europe) Phone	CDMA	Cellular	0.16	22.0	0.97	1.5
				CDMA	PCS	0.545	27.4	1.47	
Samsung	A3LSCHA725	6/15/04	Phone - Tri-Mode	AMPs	Cellular	0.301	24.8	1.04	1.5
				CDMA	PCS	0.592	27.7	0.734	
Kyocera	OVFKWC-KX1	8/5/04	Phone - Tri-Mode	AMPs	Cellular	0.341	25.3	0.68	2.5
				CDMA	PCS	0.418	26.2	0.55	
Audiovox	CJ6DCFC009001	8/27/2003	Phone - Tri-Mode	AMPs	Cellular	0.635	28.0	0.922	1.5
				CDMA	PCS	0.407	26.1	0.585	
Sanyo	AEZSCP-82H	3/19/2004	Phone - Tri-Mode	AMPs	Cellular	0.439	26.4	1.01	1.9
				CDMA	PCS	0.564	27.5	1.01	